DEFENSE LOGISTICS AGENCY
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IN REPLY
REFER TO DSCC -VAI (Mr. Lee Surowiec/(DSN 850) 614-692-0571) February 6, 2004

MILITARY/INDUSTRY DISTRIBUTION

SUBJECT: Initial Draft of MS25471, Revision D, Wire, Electrical, Silicone-Insulated, Copper, 600 Volt, 200 DEG. C, Polyester Jacket. Project Number: 6145-2367-000.

The initial draft for this document, dated 28 January 2004, is now available for viewing and downloading from the DSCC-VA Web site:

http://www.dscc.dla.mil/Programs/MilSpec/DocSearch.asp

This document is being revised to update cancelled references and update the format. Technical requirements otherwise remain unchanged.

Concurrence or comments are required at this Center within 45 days from the date of this letter. Late comments will be held for the next coordination of the document. Industrial activities should indicate whether they are commenting from the standpoint of a “User” or “Manufacturer”. Comments from military departments must be identified as either "Essential" of "Suggested". Essential comments must be supported with supporting data. Military review activities should forward comments to their custodians in sufficient time to allow for consolidation of their department reply.

The point of contact for this document is Mr. Lee Surowiec, Defense Supply Center Columbus, DSCC-VAI, Post Office Box 3990, Columbus, OH 43216-5000. Mr. Surowiec can also be reached at 614-692-0530/850-0530, by facsimile at 614-692-6939/850-6939, or by e-mail at leroy.surowiec@dla.mil.

Sincerely,

/signed/

RICHARD L. TAYLOR
Chief
Interconnection Devices Team

cc:
DSCC-CDAB (Rocky Sunday)
DSCC-VSS (Bill Heckman)
DSCC-VQP (Kathy Lyons)

This initial draft, prepared by DLA-CC, dated 28 January 2004, has not been approved and is subject to modification. DO NOT USE FOR ACQUISITION.

INCH-POUND

MS25471D
DATE TBD
SUPERSEDING
MS25471C
6 January 1969

DETAIL SPECIFICATION SHEET

WIRE, ELECTRICAL, SILICONE-INSULATED, COPPER, 600 VOLT, 200 DEG. C, POLYESTER JACKET

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification and MIL-W-8777.

MS25471 is inactive for new design and is used for replacement purposes only.

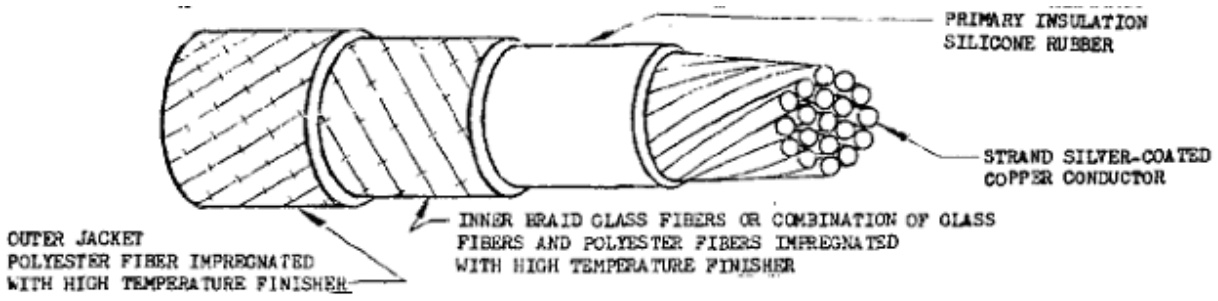

FIGURE 1. Cable.

TABLE I. Performance details.

Wire size	Abrasion test				Flaws test		Insulation and surface resistance			Life cycle and cold bend		
	Resistance, inches of tape min.	Tension load lbs.	Weight support bracket	Weight lbs.	Min AC voltage 60 Hz RMS		Humidity resistance megohms per 200 feet min.	Insulation resistance megohms per 50 feet min.	Surface resistance megohm inches min	Mandrel diameter inches max.		Test load life cycle cold bend lbs.
					Primary insulation	Finished wire				Life cycle	Cold bend	
22	22	1	A	1	2000	5000	500	100	5.0	4.5	3	.75
20	22	1	A	1	2000	5000	500	100	5.0	4.5	3	.75
18	22	1	A	1	2000	5000	500	100	5.0	4.5	3	1.0
16	30	2	A	1	2000	5000	500	100	5.0	6.5	3	1.0
14	13	2	B	3	2000	5000	500	100	5.0	6.5	6	1.0
12	17	2	B	3	2000	5000	500	100	5.0	6.5	6	3.0
10	20	2	B	3	3000	5000				10	6	3.0
8	25	2	B	3	3000	5000				10	6	3.0
6	25	2	C	3	4000	5000				10	10	6.0
4	33	2	C	4.25	4000	5000				10	10	6.0
2	34	2	C	4.25	4000	5000				10	10	6.0
1	35	2	C	4.25	4000	5000				10	10	6.0
0	48	2	C	4.25	4000	5000				10	10	10.0
00	48	2	C	4.25	4000	5000				10	10	10.0

TABLE II. Finished Wire Construction.

Dash	Wire size	Number of strands	Max. diameter of stranded conductor	Max. resistance at 20°C (68°F) ohms/1000 ft.	Diameter	Max. weight lbs/1000 ft.
22	22	19	.033	15.2	.085 ± .005	5.8
20	20	19	.041	9.42	.095 ± .005	7.8
18	18	19	.052	6.03	.110 ± .005	10.8
16	16	19	.060	4.76	.125 ± .005	13.5
14	14	19	.074	2.99	.143 ± .007	20.0
12	12	19	.093	1.88	.163 ± .007	29.0
10	10	49	.128	1.16	.193 ± .007	45.0
8	8	133	.176	.70	.248 ± .007	72.0
6	6	133	.218	.436	.303 ± .007	107.0
4	4	133	.272	.274	.360 ± .010	165.0
2	2	665	.345	.179	.425 ± .010	262.0
1	1	817	.384	.144	.460 ± .010	317.0
01	0	1045	.432	.114	.535 ± .015	390.0
02	00	1330	.490	.090	.585 ± .015	500.0

Inches	mm	Inches	mm	Inches	mm	Inches	mm
.005	.127	.085	2.159	.193	4.902	.432	10.97
.007	.178	.093	2.362	.218	5.537	.460	11.68
.010	.254	.095	2.413	.248	6.299	.490	12.45
.015	.381	.110	2.794	.272	6.909	.535	13.59
.033	.838	.125	3.175	.303	7.696	.585	14.86
.041	1.041	.128	3.251	.345	8.763	1.5	38.10
.052	1.321	.143	3.632	.360	9.144	2.0	50.80
.060	1.524	.163	4.140	.384	9.754	3.5	88.90
.074	1.880	.176	4.470	.425	10.79		

REQUIREMENTS:

The procurement specification for this specification sheet is MIL-W-8777.

Dimensions are in inches.

Metric equivalents are given for information only.

Tensile strength (minimum): 800 psi before aging; 600 psi after aging.

Elongation (minimum): 1½ inches (2 inch specimen stretched to 3½ inches) before and after aging.

Insulation shrinkage: During and following the thermal shock or flash test, the primary insulation shall not shrink greater then .060 inch for all wire sizes.

Dimensions and configuration: see figure 1 and tables I and II.

Part or Identifying Number (PIN) example: MS25471 - 10

MS specification sheet number

Dash number

CONCLUDING MATERIAL

Custodians:
Army - AV
Navy - AS
Air Force - 11
DLA - CC

Preparing activity:
DLA - CC

(Project 6145-2367-000)